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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,914	03/23/2004	Masahiro Ikeda	0941.70144	3878

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EXAMINER

NGUYEN, THANH NHAN P

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/806,914	Applicant(s) IKEDA ET AL.	
	Examiner (Nancy) Thanh-Nhan P. Nguyen	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/23/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada et al U.S. Patent No. 5,910,829.

Referring to claim 1, Shimada et al discloses a liquid crystal display (LCD) panel comprising a display area (107) for displaying images, and a frame area (106) that surrounds the display area, wherein the frame area comprises: a transparent substrate (130); a plurality of color filters (R, G, B) provided side-by-side on the transparent substrate, each of the color filters filtering one of at least two predetermined colors; a first electrode (120) that counters the color filters; a second electrode (not shown) that counters the first electrode, and liquid crystal (LC) that is inserted between the first electrode and the second electrode, [see fig. 15; and col. 13, lines 6, 25].

Referring to claim 2, Shimada et al discloses each of the color filters is one of red, green, and blue colors, [see fig. 15].

Referring to claim 5, Shimada et al discloses the thickness of the color filters in the frame area is equal to thickness of a plurality of color filters in the display area, [see fig. 15].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al in view of Ono et al U.S. Patent Application Publication No. 2005/0083471.

Referring to claim 3, Shimada et al lacks disclosure of the liquid crystal is normally black liquid crystal.

Ono et al discloses by adopting a so-called normally black liquid crystal, which can generate a black display in a state in which an electric field is not applied to the liquid crystal, it is possible to strengthen the function of the conductive layer as a black matrix, [see par. 0204]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use normally black liquid crystal for the benefit of being possible to strengthen the function of the conductive layer (such as electrodes) as a black matrix.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al in view of Tashiro et al U.S. Patent Application Publication No. 2002/0196393.

Referring to claim 4, Shimada et al lacks disclosure of the first electrode and the second electrode in frame area are connected to a common voltage.

Tashiro discloses the first electrode (58) and the second electrode (60) are connected to a common voltage (56), [see fig. 42b], for controlling the liquid crystal molecules in the area between electrodes 58 and 60 (frame area) separately/differently from the controlling the liquid crystal molecules in the area between electrodes 8 and 14 (display area), [observing from figs. 42a-42b]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have the first electrode and the second electrode in frame area are connected to a common voltage for controlling the liquid crystal molecules in the frame area separately/differently from the controlling the liquid crystal molecules in the display area.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al in view of Makino U.S. Patent No. 6,259,505.

Referring to claim 6, Shimada et al lacks disclosure of a transparent protective coat is provided between the color filters and the first electrode.

It was very well known that the main purposes of using transparent protective coat provided between the color filters and the electrodes are for flattening of the color filters surface and being as electrical insulation between the color filters and the

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electrode formed thereon, and it is evidenced by Makino, [see col. 1, lines 32-36]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have a transparent protective coat is provided between the color filters and the first electrode for the benefit of flattening of the color filters surface and being as electrical insulation between the color filters and the electrode formed thereon.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al in view of Miyazaki et al U.S. Patent No. 5,978,061.

Referring to claim 7, Shimada et al lacks disclosure of a spacer member in frame area for regulating the thickness of the LCD panel.

Miyazaki et al discloses spacer(s) member in frame area (off-display area), [see fig. 6], and as the language regarding the use as spacer for maintaining the space between two substrates in LCD panel is an intended used limitation, and therefore does not patentably distinguish the invention.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al in view of Matsuoka et al U.S. Patent No. 6,348,958.

Referring to claim 8, Shimada et al lacks disclosure of an area occupancy ratio of the color filters in one color is different from an area occupancy ratio of the color filters in another color.

Matsuoka et al discloses an area occupancy ratio of the color filters in one color is different from an area occupancy ratio of the color filters in another color, [fig. 1], for the benefit of being possible to omit the step of manufacturing a black mask so as to reduce the cost; and consequently, a color filter for an optical display device can be provided with an excellent appearance on a display, [see abstract]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have an area occupancy ratio of the color filters in one color is different from an area occupancy ratio of the color filters in another color for the benefit of being possible to omit the step of manufacturing a black mask so as to reduce the cost; and consequently, a color filter for an optical display device can be provided with an excellent appearance on a display.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shimada et al U.S. Patent No. 5,910,829 discloses the frame area of LCD panel comprising a plurality of color filters provided side-by-side on the transparent substrate, and the thickness of the color filters in the frame area is equal to thickness of a plurality of color filters in the display area.

Ono et al U.S. Patent Application Publication No. 2005/0083471 discloses the liquid crystal is normally black liquid crystal.

Tashiro et al U.S. Patent Application Publication No. 2002/0196393 discloses the first electrode and the second electrode in frame area are connected to a common voltage.

Makino U.S. Patent No. 6,259,505 discloses a transparent protective coat is provided between the color filters and the first electrode.

Miyazaki et al U.S. Patent No. 5,978,061 discloses a spacer member in frame area for regulating the thickness of the LCD panel.

Matsuoka et al U.S. Patent No. 6,348,958 discloses an area occupancy ratio of the color filters in one color is different from an area occupancy ratio of the color filters in another color.

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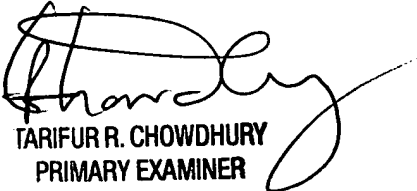
Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on M-F/9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 13, 2005

TN


TARIFUR R. CHOWDHURY
PRIMARY EXAMINER